

REMARKS

Claims 1-54 were rejected 35 U.S.C. §102(e) in the Office Action mailed on June 4, 2002. Claims 1, 12, 21, 31, 40, and 46 are amended. Claims 1-54 are now pending in this application. Applicant respectfully requests consideration of the above-identified patent application as amended in view of the following remarks. Applicant contends that all amendments to the claims are supported by the Specification as filed and thus do not constitute new matter.

Rejection Under 35 U.S.C. §102(e)

Claims 1-54 are rejected under 35 U.S.C. § 102(e) as being anticipated by Bossard et al (U.S. Patent 5,949,793). Applicant respectfully maintains the traversal of the rejection and requests reconsideration of the claims as amended. Applicant reserves the right to swear behind Bossard et al. However, to further the prosecution of the present claims, Applicant provides the following reasons in support of allowance of the claims over the cited art.

The Examiner rejected claims 1-2, 12, 15, 21-22, 31, 34, and 46 under 35 U.S.C. §102(e) as being anticipated by Bossard et al. Applicant respectfully traverses this rejection and requests reconsideration of the claims 1-2, 12, 15, 21-22, 31, 34, and 46 as amended.

Claim 1, as amended, is directed to a communication system wherein adjacent portions of communication areas of different communication circuits use the same polarization to form communication regions of the same polarization. When considered as a whole, Bossard et al. does not teach or suggest such "communication regions." Therefore, Bossard et al. does not anticipate claim 1.

Claim 2 depends from claim 1 and thus is also allowable over the art.

Claim 12 is directed to a communication system comprising a number of communication circuits disposed to form substantially linear boundaries between communication regions. The communication circuits use first and second, different polarizations for signals communicated in

adjacent regions. Bossard et al. does not teach a system with communication circuits disposed to form substantially linear boundaries between regions with the use of different polarizations in adjacent regions. Therefore, Bossard et al. does not anticipate claim 12.

Claim 15 depends from claim 12 and thus is also allowable.

Claim 21, as amended, is directed to dividing a region into communication areas that include a communication circuit, wherein a first portion of each communication area communicates with a first polarization and a second portion of the communication area communicates with a second polarization such that adjacent portions of communication areas of different communication circuits use the same polarization to form communication region belts having the same polarization.

Bossard et al. does not teach or suggest a method that communicates with different polarizations in "communication region belts" as called for in claim 21. Therefore, Bossard et al. does not anticipate claim 21.

Claim 31, as amended, is directed to forming boundaries between bands of communication regions with communication circuits, wherein a first region communicates with a first polarization and an adjacent region communicates with a second polarization. Bossard et al. does not teach a method for forming boundaries between bands of communication regions that use differing polarization in adjacent bands. Therefore claim 31 is not anticipated by Bossard et al.

Claim 34 depends from claim 31 and thus is also allowable.

Claim 46, as amended, is directed to a communication system comprising a number of communication circuits disposed to divide a region into communication areas. Each communication circuit communicates using a first polarization in a first portion of its communication area and communicates using a second, different polarization in a second portion

of its communication area. Adjacent portions of communication areas between each pair of adjacent communication circuits use the same polarization to form communication region strips of the same polarization.

Bossard et al. does not teach or suggest such "communication region strips" as called for in claim 46.

The Examiner rejected claims 3-4, 13-14, 23-24, 32-33, 41-42, and 47-48, under 35 U.S.C. §102(e) as being anticipated by Bossard et al. Applicant respectfully traverses this rejection. As claims 3-4, 13-14, 23-24, 32-33, 41-42, and 47-48 depend directly or indirectly from and further define patentably distinct claims 1, 12, 21, 31, 40, and 46, Applicant respectfully contends that claims 3-4, 13-14, 23-24, 32-33, 41-42, and 47-48 are also allowable.

The Examiner rejected claims 5, 25, and 49, under 35 U.S.C. §102(e) as being anticipated by Bossard et al. Applicant respectfully traverses this rejection. As claims 5, 25, and 49 depend indirectly from and further define patentably distinct claims 1, 21, and 46, Applicant respectfully contends that claims 5, 25, and 49 are also allowable.

The Examiner rejected claims 6-7, 16, 26, 35, 43, and 50-51 under 35 U.S.C. §102(e) as being anticipated by Bossard et al., Applicant respectfully traverses. As claims 6-7, 16, 26, 35, 43, and 50-51 depend indirectly from and further define patentably distinct claims 1, 12, 21, 31, 40, and 46, these claims are also believed to be allowable.

The Examiner rejected claims 8-11, 17-20, 27-30, 36-39, and 52-54 under 35 U.S.C. §102(e) as being anticipated by Bossard et al. Applicant respectfully traverses this rejection. As claims 8-11, 17-20, 27-30, 36-39, and 52-54 depend indirectly from and further define patentably distinct claims 1, 12, 21, 31, and 46, Applicant respectfully contends that claims 8-11, 17-20, 27-30, 36-39, and 52-54 are also allowable.

Serial No.: 09/183,715

Filing Date: October 30, 1998

Attorney Docket No. 100.104US01

Title: USING ALTERNATE POLARIZATION IN FIXED WIRELESS SYSTEM DEPLOYMENT FOR IMPROVED CAPACITY

The Examiner rejected claim 40 under 35 U.S.C. §102(e) as being anticipated by Bossard et al. Applicant respectfully traverses the rejection.

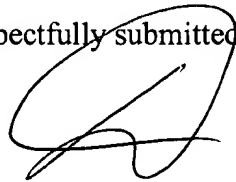
Claim 40, as amended, is directed to forming a number of communication areas, each communication area including a communication circuit, each communication circuit communicating using a first polarization in a first portion of each communication area and a second polarization in a second portion of each communication area; forming a number of communication regions in belts of either the first or second polarization wherein adjacent portions of communication areas between different communication circuits use the same polarization; and forming a number of sectors within each communication area, where the first and second portions of the communication area are divided along a number of boundaries of the sectors, each sector communicating on a different subband of a frequency spectrum.

Bossard et al. does not teach or suggest forming communication regions in belts as called for in claim 40. Therefore, Bossard et al. does not anticipate claim 40.

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 332-4702, ext. 225.

Date: October 4, 2002

Respectfully submitted,



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MARKED-UP VERSIONS OF AMENDMENTS**IN THE CLAIMS**

1. (Twice Amended) A communication system comprising:

a number of communication circuits disposed to divide a region into communication areas;

wherein each communication circuit communicates using a first polarization in a first portion of its communication area and communicates using a second, different polarization in a second portion of its communication area; and

wherein adjacent portions of communication areas between different communication circuits use the same polarization to form communication regions of the same polarization.

12. (Once Amended) A communication system comprising:

a number of communication circuits disposed to form substantially linear boundaries between communication regions; and

wherein the communication circuits use first and second, different polarizations for signals communicated in adjacent regions.

21. (Twice Amended) A method comprising:

dividing a region into a number of communication areas, each communication area including a communication circuit;

communicating using a first polarization in a first portion of each communication area;

communicating using a second polarization in a second portion of each communication area; and

wherein adjacent portions of communication areas between different communication circuits use the same polarization to form communication region belts having the same polarization.

MARKED-UP VERSIONS OF AMENDMENTS

31. (Once Amended) A method comprising:

forming boundaries between bands of communication regions by disposing a number of communication circuits;

communicating using a first polarization in a first region; and

communicating using a second polarization in an adjacent region to the first region.

40. (Once Amended) A method comprising:

forming a number of communication areas, each communication area including a communication circuit, each communication circuit communicating using a first polarization in a first portion of each communication area and a second polarization in a second portion of each communication area;

forming a number of communication regions in belts of either the first or second polarization wherein adjacent portions of communication areas between different communication circuits use the same polarization; and

forming a number of sectors within each communication area, where the first and second portions of the communication area are divided along a number of boundaries of the sectors, each sector communicating on a different subband of a frequency spectrum.

46. (Once Amended) A communication system comprising:

a number of communication circuits disposed to divide a region into communication areas;

wherein each communication circuit communicates using a first polarization in a first portion of its communication area and communicates using a second, different polarization in a second portion of its communication area; and

wherein adjacent portions of communication areas between each pair of adjacent communication circuits use the same polarization to form communication region strips of the same polarization.